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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,711	02/23/2004	Haruhiko Nakatsu	CANO:122	1500

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ROSSI, KIMMS & McDOWELL LLP.
P.O. BOX 826
ASHBURN, VA 20146-0826

EXAMINER	
WRIGHT, KAINOA	

ART UNIT	PAPER NUMBER
2861	

DATE MAILED: 08/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/784,711	NAKATSU, HARUHIKO	
	Examiner	Art Unit	
	Kainoa BK Wright	2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 July 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) *5-8 and 11-22* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4 and 9-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *2/23/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group I, Claims 1-4 and 9-10 in the reply filed on 21 July 2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-4 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wibbels et al. (US 6731887) in view of Sawayama et al. (US 5729353).

Regarding Claims 1-2 and 9: Wibbels et al. discloses an image forming apparatus capable of duplex printing comprising: an image carrier 40; a light scanning device 25; an H-sync signal detecting device 46 for controlling a write start position (column 6, lines 33-41); a print engine controller (column 6, lines 35-40), setting a delay period equivalent to a distance from a beam detection to a write start position. Wibbels et al. further discloses the setting of a second delay period, via Δd, Δd corresponding to a change in delay period, a change in delay period implying a second delay period

different from a first delay period (column 6, lines 33-65). Wibbels et al. further teaches a second delay period based on a first delay period and further based on an expansion/contraction ratio, as a percent media change Δw (column 6, lines 40-65). The provided relationship, $\Delta d = -(0.5) \times \Delta w$, implies the relationship, $|d_2-d_1| = -(0.5) \times \Delta w$, which in turn implies, $d_2 = -(0.5) \times \Delta w \pm d_1$, or an expression for d_2 based on d_1 and Δw. The setting of a pulse number is considered equivalent to setting a delay period. It is convention for a time interval to be measured in terms of a clock pulse count. This is a convention in electronic circuits and one need only to know the pulse frequency of the clock (usually known) to determine the interval in terms of clock pulses. Wibbels et al. provides for knowing the clock frequency (column 7, lines 1-40), and setting a time interval corresponding to a distance.

Regarding Claims 3-4 and 10: Wibbels et al. discloses a second frequency being set for a second surface and a second image size being modulated by the second frequency (column 7, lines 1-33).

Regarding Claims 1-4 and 9-10: Although Wibbels et al. implies the setting of a pulse number to determine a distance from a beam detect to a write start position via the setting of a time interval based, the standard of measuring a time interval being counting.of clock pulses, Wibbels et al. fails to specifically teach pulse counting as the method of measuring this time interval corresponding to the afore mentioned distance.

Sawayama et al. specifically teaches the relationship between a time interval corresponding to a distance being measured by a pulse count of a clock (Figure 6).

Sawayama et al. further teaches this relationship in accordance with measuring a distance between a beam detect and a write start position (Figure 6).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the write start positioning of Wibbels et al. to include the pulse counting of Sawayama et al. in order to keep track of the write start timing in terms of clock pulses as shown in Sawayama et al.

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Itoh (US 5285247); Wibbels (US 6813451); Kimoto (US 6424365); Yokota (US 4782371); Conrow et al. (US 6667756).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kainoa BK Wright whose telephone number is (571) 272-5102. The examiner can normally be reached on M-F 8:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vip Patel can be reached on (571) 272-2458. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KAI
7/27/06

Hai Chi Pham

HAI PHAM
PRIMARY EXAMINER